

COMMUNITY UPDATE

Nuclear Metals Superfund Site

U. S. Environmental Protection Agency

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History of Nuclear Metals

The Nuclear Metals Site is located at 2229 Main Street in Concord, Massachusetts. The 46-acre site is surrounded by light commercial, industrial, and residential properties, and woodland areas.

Since 1958, various companies, licensed to possess radioactive materials, have operated at the site under the name Nuclear Metals. Starmet Corporation (formerly named Nuclear Metals, Inc.) has owned and operated the site since 1972. From about 1979 to 1999, Starmet manufactured depleted uranium munitions for the U.S. Army at the site. Prior to Starmet's ownership, operations at the facility involved research and development using beryllium, uranium, enriched uranium, and thorium compounds.

Wastes, some of which included hazardous substances, were disposed of at the site from approximately 1958 to 1985. Depleted uranium products were produced and by-products from the processes were discharged to an unlined holding basin located on-site. These by-products included: depleted uranium, copper, nitric acid, and lime. Volatile organic compounds (VOCs) used as solvents and degreasers were also discharged through floor drains to an on-site cooling water pond, resulting in contamination of an on-site drinking water well. Other areas of concern at the site include, but are not limited to, a sweepings pile area, contaminated sediments in a bog and two drum burial areas, one located immediately south of the bog and the other located adjacent to the cooling water recharge pond.



In 1997, Starmet, with the financial support of the U.S. Army, excavated 8,000 cubic yards of contaminated soils from the holding basin with oversight by the Massachusetts Department of Environmental Protection (DEP) and the Massachusetts Department of Public Health (DPH).

EPA begins work at Nuclear Metals Site

Based on a request made by DEP, EPA proposed the site for the National Priorities List (NPL and commonly known as the Superfund) in July 2000, with a final listing on June 14, 2001. The NPL is EPA's list of the country's most serious hazardous waste sites identified for possible long-term cleanup. EPA has begun an investigation of buried drums, which is described below, and plans to conduct soil sampling in the holding basin this fall. The purpose of the soil sampling is to determine the levels of contamination remaining in the holding basin soils following the partial cleanup performed with DEP and DPH oversight. EPA has also noticed five Potentially Responsible Parties (PRPs) for the site: Starmet, U.S. Army, and three prior owner/operators of the site (Whittaker Corporation, Textron Inc., and MONY Life Insurance Company). EPA plans to begin negotiations with the PRPs in the fall of 2001, to undertake a study to determine the nature and extent of contamination at the site called the Remedial Investigation/Feasibility Study. The agency is also considering asking the PRPs to finance or perform a separate study, known as an Engineering Evaluation/Cost Analysis, to evaluate possible cleanup alternatives for the remaining contaminated soils in the holding basin.



Agencies develop contingency plan

EPA, DEP, DPH (which administers Starmet's license to possess radioactive materials), and local authorities are preparing a contingency plan to coordinate responses in the event that an emergency response is necessary. DPH is currently inspecting the facility on a weekly basis in light of Starmet's reduced operations and the transfer of 1700 drums of depleted uranium from their South Carolina facility to the site this spring.

EPA locates buried drums

EPA's investigation of the two suspected drum burial areas consisted of geophysical surveys, sampling of surface soil, conducting pit excavations to collect samples of the buried materials, and collecting perimeter soil samples in order to ensure no exposure to contaminated soils is occurring to anyone walking around the outer perimeters of the site (see sample location map provided). During soil pit excavations performed during the week of July 23, 2001, EPA unearthed buried drums in the area near the cooling water recharge pond and in the area south of the bog. Surveying of the excavated areas and decomposed drums with radiological devices showed elevated levels of radiation. Initial soil screening results show elevated beryllium levels within the investigation areas. On July 30th, snowfence and warning signs were installed around the excavated areas as a temporary measure. Excavated areas have since been backfilled. Results of soil samples collected within and around the two areas will be available this fall.



Concord establishes 2229 Main Street Advisory Committee

The Board of Selectmen appointed the following seven residents to a newly defined town committee to work with EPA and other local, state and federal agencies on issues that arise at this address:

Kerry Diskin
David Erickson
Pamela Rockwell
Sonja Sandberg
Leonard Rappoli
Fred Seward
Vincent Winkel

History of Massachusetts DEP involvement

The Department of Environmental Protection became involved in the site when in 1980 the on-site supply well was tested and confirmed to have VOC contamination. DEP required the well to be shut down, and the floor drains to be blocked. Through the 1990s, Starmet conducted a series of comprehensive and detailed investigations of the soil, groundwater, sediment and surface water at the site under the State cleanup program. The Department also required continued monitoring of the groundwater around and downgradient of the site, and the temporary covering of the holding basin. In 1997, Starmet, with the financial support of the U.S. Army, excavated 8,000 cubic yards (or approximately 9,200 tons) of contaminated soils from the holding basin with oversight by the DEP and the Massachusetts Department of Public Health (DPH, the agency which administers Starmet's license to possess radioactive materials). The cleanup halted when Starmet determined that the cleanup level set by DEP could not be met without excavating significantly more material. Due in part to Starmet's worsening financial situation, DEP requested that the Starmet facility be listed on the National Priorities List, making it a Superfund site under federal authority, with continued assistance from the DEP.

ATSDR studies potential health concerns

When a site is proposed for listing on the National Priorities List, the Agency for Toxic Substances and Disease Registry (ATSDR) is required to conduct a health assessment to evaluate the potential threats to human health posed by the site. The aim of these evaluations is to find out if people are being exposed to hazardous substances and, if so, whether that exposure is harmful and should be stopped or reduced. In addition, the health assessment evaluates available health outcome data (e.g., cancer incidence data), and responds to community concerns related to public health issues. The assessment combines the information of environmental and health data to determine potential public health impacts from opportunities for exposure at the site. The first phases of this report have been completed. Following further review by the other agencies and the incorporation of additional data, the draft report will be released to the public for comment before it is finalized.

Community Update

This newsletter is published periodically to keep citizens informed about activities at the Nuclear Metals Superfund Site.

Once the sampling results from the drum burial areas have been received and evaluated, EPA will schedule another community meeting to keep residents informed.

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If you or someone you know would like to be on the mailing list, please contact Alice Kaufman.



How did the Superfund program begin?

The Superfund program was established by the U.S. Congress on December 11, 1980, through the passing of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Since then, a variety of laws and policies, many of which have changed over the years, continue to govern the work of the Superfund program:

Since 1980, EPA has spent over \$600 million on the design and construction of cleanups for NPL sites in New England.

